FINAL

CLEAN AIR ACT SECTION 112(r) INSPECTION REPORT

Sysco Albany, LLC

Halfmoon, NY

GENERAL INFORMATION

Stationary Source	Sysco Albany, LLC
Date of Inspection	May 13, 2011
USEPA Inspector	Francesco Maimone – USEPA, REGION II (Edison, NJ)
Contract Auditor	Neil Mulvey, OHC (Subcontractor)
Description of Activities	• Opening meeting with facility representative. • Program audit. • Closing meeting with facility representatives. Program audit consisted of the following activities: 1. Document review. 2. Field verification. 3. Personnel interviews

STATIONARY SOURCE INFORMATION

EPA Facility ID #	1000 0019 2329
Date of Latest Submission (used for RMP inspection)	Receipt Date: December 6, 2010 (Re-submission) Anniversary Date: December 6, 2015
Facility Location	1 Liebich Lane Halfmoon, NY 12065 Saratoga County Tel. (518) 877-3145
Number of Employees	*RMP*Submit* states 235 employees (per RMP registration); facility reported 590 employees on-site (includes sales, office, warehouse, drivers) Warehouse workers and drivers are union-represented by Local 294. Anhydrous ammonia operators are not union-represented.

Description of Surrounding Area	The facility is located on approximately 66 acres in a rural / residential area in Halfmoon, NY, approximately 10 miles northeast of Schenectady, NY. The facility is surrounded by open space (wooded areas and farmland) on all sides. The nearest resident is 700-ft. west of the facility.
Participants	Participants included: Francesco Maimone, USEPA – Region II, Edison, NJ Neil Mulvey, USEPA Contractor <u>Sysco Albany, LLC:</u> Michael Baldwin – Director of Facility/Fleet (Facility Manager) Mark Cusack – Facilities Supervisor John J. Cammarene – Director of Safety * * Designated RMP Lead

REGISTRATION INFORMATION

Process ID #	1000020684 – Ammonia Refrigeration
Program Level (as reported in RMP)	Program 3
Process Chemicals	Ammonia (anhydrous) @ 12,000-lbs.
NAICS Code	42441 (General Line Grocery Merchant Wholesalers)

GENERAL COMMENTS

Sysco Albany, LLC operates a food storage and distribution facility in Halfmoon, New York. Operations include food receipt, storage, and distribution. The facility started operations in May 2001. The facility includes an estimated 288,000 square feet of warehouse space, including freezer storage, low and medium temperature storage, and dry goods. The facility distributes grocery and perishable foods to state owned facilities, colleges and retail facilities stretching from Long Island, New York and New Jersey, to upstate New York (Canadian border). There are no food processing operations at this site.

Operations include an ammonia refrigeration system to provide refrigerated storage in several warehouse spaces. The refrigeration system utilizes anhydrous ammonia as a

refrigerant. The refrigeration system operates 24 hours a day, 7 days a week. The Facilities Supervisor, who is the most trained person at the facility in ammonia refrigeration system, typically works the day shift.

Important characteristics of anhydrous ammonia include:

- Colorless liquid or gas with pungent odor
- Acutely toxic
- Irritant and corrosive to the skin, eyes, respiratory tract and mucous membranes; exposure to liquid or rapidly expanding gases may cause severe chemical burns and frostbite to the eyes, lungs, and skin.
- Weight – 5.15-lbs./gals. (@60 deg.F)
- Vapor density is lighter than air
- Boiling point is -28 deg.F (@ 1 ATM)
- Can form explosive mixtures in air
- Flammable range is 16 – 25 %

The ammonia refrigeration system is a single stage system, including:

- 4 FES Screw Compressors (three high state and one swing/booster)
- 1 high pressure receiver (HPR) (located inside engine room)
- High temperature recirculator with two ammonia pumps (located inside engine room)
- Low temperature recirculator with two ammonia pumps (located inside engine room)
- 3 evaporative condensers (located outside on engine room roof)
- 18 air handling units (located in penthouses on roof)

The four compressors are located inside one engine room, along with the HPR and two other ammonia vessels. The roof top penthouses for the air handling units are designed to minimize worker exposure to potential ammonia releases from liquid supply and vapor return lines and valves.

Facility start-up was in 2001, with an ammonia charge less than the 10,000-lbs. Risk Management Program threshold. The refrigeration system was expanded in 2005, adding 2,800-sq.ft. of refrigerated space including addition of the fourth compressor requiring the addition of 1,000-lbs. of anhydrous ammonia. The facility filed a Risk Management Program registration based on the 2005 expansion. An additional 1,000-lbs. of anhydrous ammonia was added to the system in 2008. Facility management reported that no ammonia has been added to the system since 2008.

The facility has an extensive network of anhydrous ammonia detectors as follows:

- 1 in engine room
- 1 detector in each of 18 AHU penthouses
- 1 detector in the manifold relief vent stack

Ammonia detector alarms annunciate at the cooler dock (audible and strobe light) and at the guardhouse. A call-out procedure is established to contact refrigeration personnel if an alarm sounds. The engine room ammonia detector will automatically start emergency exhaust fans if concentrations exceed setpoints, as well as shutdown Heating, Ventilation, and Air Conditioning (HVAC) intake fans to the main building. System design includes remote monitoring of refrigeration equipment.

The Facilities Supervisor is provided training to have a basic working knowledge of anhydrous ammonia system. The Director of Facility/Fleet is required to have a working knowledge of the system as well. Rather than having qualified ammonia refrigeration operators, the facility relies heavily on a third party refrigeration contractor (Innovative Refrigeration Systems, Inc., Lyndhurst, Virginia) for all troubleshooting, maintenance, oil draining, and loading of anhydrous ammonia when necessary. Facility personnel reported that the third party refrigeration contractor arrives at the facility on a monthly basis to perform routine maintenance.

RISK MANAGEMENT PROGRAM DOCUMENTATION

Risk Management Program documents are maintained in an on-line (electronic) system maintained and developed by Innovative Refrigeration Systems. The program is called "*e-PSM*" and includes electronic copies of process safety / risk management documents. The electronic system has a tab for each Risk Management Program element. Each tab includes a link to 'view section' and 'section documents.' 'View section' provides a link to a narrative written description of the Risk Management Program element. 'Section documents' provides a link to specific documents relative to the Risk Management Program element. 'View section' includes:

- Compliance Matrix (comparison of OSHA PSM / USEPA RMP requirements)
- Written description of the specific Risk Management Program element

As an example, 'section documents' for PSI includes links to specific PSI documents, including:

- Process flow diagram
- Electrical and controls diagrams
- P&IDs
- Equipment specifications (i.e., U-1A data reports)
- Ammonia inventory charge calculations
- Equipment list

- Electrical classification
- Relief line calculations
- Ventilation calculations
- Mass energy balance

Each document listed in 'section documents' can be viewed, downloaded, or printed. Documents and files are scanned into 'section documents' by Sysco personnel or support personnel from Innovative Refrigeration Systems.

As a follow-up to the May 13 on-site inspection, Sysco granted the USEPA inspectors access to the electronic system for the purpose of reviewing the programs and supporting documents to facilitate the inspection. Therefore, a majority of the comments provided in this report and the RMP Checklist Report are based on post-site visit evaluation of the electronic documents via access to *e-PSM*.

In addition to the *e-PSM* system, on-site documentation includes two large manuals containing written programs and procedures (original date 6/8/05; Rev. 2.0 dated 6/22/06). On-site documentation includes binders containing support documents (Emergency Response Plan, training records, etc.).

On-site facility personnel had a reasonable understanding of Risk Management Program documentation, but on several occasions needed to contact the third party contractor to locate documents or to confirm the availability of Risk Management Program documents. Likewise, on-site personnel had a limited understanding of the design and operation of the actual refrigeration equipment.

Registration

The facility is regulated by the Occupational Safety and Health Administration (OSHA) Process Safety Management (PSM) Rule. Because the facility stores anhydrous ammonia above the PSM and Environmental Protection Agency (EPA) regulatory thresholds, the anhydrous ammonia process is correctly registered as an EPA Risk Management Program Level 3 Prevention Program.

The facility submitted an initial Risk Management Plan (RMP) on June 20, 2005. As a result, the Five-Year re-submission of the facility's RMP was due by June 20, 2010 (40 CFR 68.190(b)(1)). The required RMP re-submission, however, was not successfully posted in the EPA's RMP*eSubmit website until December 6, 2010.

Management System [*40 CFR 68.15*]

According to the facility's December 6, 2010 Risk Management Plan, the Director of Safety has overall responsibility for the facility's Risk Management Program.

The facility's *e-PSM* system contains Management System information under a section titled "Management Programs". A document within the "Management Programs" section titled "Distribution of Responsibilities" identifies each Risk Management Program element (including PSM elements), and assigns one of the following "responsible person" titles to each program element: PSM/Coordinator Chairman, HR/Safety Manager, and Facility/Warehouse Manager. A description of each "responsible person" title is provided for each program element.

A review of the "Distribution of Responsibilities" document indicated that information contained in the document is not consistent with the Management System observed during the inspection. For example:

- Responsibility for Mechanical Integrity is assigned to the Facility/Warehouse Manager in the "Distribution of Responsibilities" document. Most actual Mechanical Integrity responsibilities, including conformance with recognized and generally accepted engineering practice, do not fall within the actual scope and responsibilities of the Facility Manager's role at the facility. During the inspection, it was noted that Innovative Refrigeration Systems, Inc. is actually responsible for most aspects of Mechanical Integrity, including identifying engineering practices that apply to the ammonia system.
- Two of the three "responsible person" titles reflected actual titles at the facility (Mike Baldwin, Facility Manager; John Cammarene, Safety Manager). There was no "PSM/Coordinator Chairman" position at the facility.
- The "PSM/Coordinator Chairman" is assigned overall responsibility for the facility's Risk Management Program, according to the "Distribution of Responsibilities" document. This is not consistent with the facility's Risk Management Plan, which indicates that the Safety Director is responsible for implementing the facility's Risk Management Program.

For the reasons identified above, the facility must develop and implement a Management System that is consistent with actual positions, job responsibilities, and organizations responsible for developing and implementing the facility's Risk Management Program.

Hazard Assessment [*40 CFR 68.20-68.39*]

The facility used the EPA's Risk Management Program Guidance "Appendix E: Supplemental Risk Management Program Guidance for Ammonia Refrigeration Facilities" in order to determine its Worst Case (WC) and Alternative Case (AC) release scenarios. This guidance was also used by the facility to determine a distance-to-endpoint (DTE) for the WC and AC scenarios. Additionally, the facility correctly used MARPLOT and MapQuest maps, and Landview Census 2000 data, to determine public

and environmental receptors within each DTE. The facility's Hazard Assessment information was located in the facility's *e-PSM* system in a document titled "Release Scenarios".

The facility's "Release Scenarios" document in the *e-PSM* system states that a 50% mitigation factor was assigned for the WC scenario; however, the basis and calculation of the mitigation factor were not identified. Although the EPA's Risk Management Program Guidance "Appendix E: Supplemental Risk Management Program Guidance for Ammonia Refrigeration Facilities" provides guidance on the calculation of mitigation factors (Equation 2 Page 6; Pages 5 – 11), this office recommends that the facility evaluate its release scenarios with a free computer program named "RMP*Comp". RMP*Comp automatically calculates release scenario distance-to-endpoints, and as a result, is less subject to human error.

RMP*Comp can be downloaded at the following website:
http://www.epa.gov/osweroe1/content/rmp/rmp_comp.htm

For Windows 7 users, an internet-based version of RMP*Comp will be released in the near future. Please check the website above on a periodic basis for the release of the internet-based RMP*Comp tool.

Inconsistencies were noted between the facility's Hazard Assessment parameters in the *e-PSM* system and the facility's December 6, 2010 Risk Management Plan (RMP) re-submission. These inconsistencies are noted below:

- Topography: *e-PSM* states "Rural" while 12/6/10 RMP states "Urban" for WC and AC release scenarios.
- WC release parameters: *e-PSM* release parameters consider enclosure passive mitigation, while the 12/6/10 RMP release parameters are not adjusted for passive mitigation.
- AC release parameters: *e-PSM* and 12/6/10 RMP release quantities are not the same, thus yielding inconsistent ACS release parameter results.

Based on the inconsistencies noted above, the facility should evaluate its Hazard Assessment information and ensure that the *e-PSM* system and the facility's Risk Management Plan (RMP) submission are consistent with one another. Please note that revision to the facility's 12/6/10 RMP Hazard Assessment information must be posted in RMP*eSubmit as a "correction".

Additionally, please note that the facility is reminded that it must use Census 2010 data in its next 5-Year Hazard Assessment review and update. Census 2010 data is now integrated into newer versions of MARPLOT, thus eliminating the need for Landview to obtain population estimates. The newest version of MARPLOT (version 4.2.1) can now be downloaded at: http://www.epa.gov/osweroe1/content/cameo/marplot.htm

Process Safety Information (PSI) [*40 CFR 68.65*]

The *e-PSM* system includes a written description of the facility's PSI program. See above for list of PSI documents available for review.

The P&IDs are detailed, including line identification, valves, and equipment. PSI includes an equipment list, which includes:

- Equipment description
- Manufacturer
- Model/serial number
- Design specifications
- Ammonia capacity
- Operating conditions
- Relief design
- Year purchased

During a review of PSI documentation regarding safety systems, a discrepancy was identified regarding the setpoint for the automatic shutdown of ammonia supply valves to air handling units (AHUs). Facility management reported that the setpoint for AHU emergency shutdown is 500 ppm, yet Emergency Shutdown procedures state that the AHU emergency shutdown setpoint is 50 ppm.

The following PSI information was not available for review on the date of inspection:

- Evaluation of existing system vs. Recognized and Generally Accepted Good Engineering Practices (RAGAGEP)
- Evaluation of the consequences of deviation.

Process Hazard Analysis (PHA) [*40 CFR 68.67*]

The initial PHA was conducted in June 2005. The initial PHA was conducted using the "What-If/Checklist" technique utilizing a pre-established checklist. In addition of equipment specific PHA questions, the PHA included checklists for human factors, facility siting, and emergency response. The PHA was led by a third party consultant (Innovative Refrigeration Systems) and included two Sysco employees as team members. The PHA identified 18 recommendations and included documented resolution of the recommendations.

A PHA revalidation review was conducted on 8/16/10, and included completion of human factors, facility siting, and emergency response checklists. It appears that the PHA revalidation did not include a team review despite team involvement. No recommendations were identified in this PHA revalidation.

Standard Operating Procedures (SOPs) [*40 CFR 68.69*]

The *e-PSM* system includes a written description of the facility's operating procedures, including written procedures for various operating phases including:

- Start-up
- Normal operations
- Temporary operations
- Emergency shutdown
- Emergency operations
- Normal shutdown
- Start-up following emergency shutdown

Written safety procedures include:

- Lock-out/tag-out
- Confined space entry
- Opening process equipment / piping

Documentation included certification on 8/13/10 that the SOPs are current and reflective of existing operations. This annual certification was a team-based review.

The SOPs refer to "Refrigeration Operator" and "qualified operator." Facility management explained that a majority of system operations is performed by the third party refrigeration expert (Innovative Refrigeration Systems). Because there is no Sysco Albany facility employee with the title "Refrigeration Operator", the facility should delineate which SOPs are executed by the "Facilities Supervisor", and which SOPs are carried out by Innovative Refrigeration System's qualified refrigeration operators.

Training [*40 CFR 68.71*]

The two Sysco Albany personnel who have received training on ammonia refrigeration are Michael Baldwin (Facility Manager) and Mark Cusack (Facilities Director). Facility personnel indicated that training consists of a series of Innovative Refrigeration System Inc. training courses, including training at the Innovative Refrigeration System's Training Center and Innovative Refrigeration System Inc.'s "Industrial Refrigeration Technical College" online courses, and visual demonstration by Innovative Refrigeration System refrigeration technicians.

The following operator training records for anhydrous ammonia were reviewed:

Mark Cusack
Ammonia Service Training, October 18 – 20, 2005 (initial)
Ammonia Service Training, October 27 – 29, 2009

Michael Baldwin
Operating & Maintaining Refrigeration Equipment, October 31, 2002 (initial)

Although the facility operators are trained through off-site Innovative Refrigeration System Inc. courses and on-site visual demonstration by Innovative Refrigeration System Inc. contractors, there was no documentation certifying that the Sysco Albany operators are sufficiently trained for their roles in operating the facility's specific anhydrous ammonia system configuration and handling emergency operations. The facility must ensure that initial and refresher training is documented for carrying process-specific operating procedures, as required by 40 CFR 68.71(c).

During the inspection, facility personnel indicated that a policy for initial and refresher training requirements has not been formalized, despite a training policy that existed in *e-PSM*. For example, the training policy in *e-PSM* did not reflect training requirements discussed by facility personnel, and the facility has not implemented training documentation forms located in the *e-PSM* system. For this reason, the facility's initial and refresher training requirements have not been sufficiently defined and implemented.

During the inspection, facility personnel expressed an intention to integrate an annual Innovative Refrigeration System Inc. week-long training course (Ammonia Service and PSM/RMP Training) and online training courses into its training program as part of refresher training. In order to define its initial and refresher training requirements and ensure that process-specific training is sufficiently documented, it is recommended that the facility formalize requirements for initial and refresher training.

Mechanical Integrity [*40 CFR 68.73*]

The *e-PSM* system includes a written description of the facility's mechanical integrity program. The *e-PSM* program includes schedules for upcoming equipment inspections and tests on the opening screen, and the written description contains a written schedule for required inspections and tests. Records for previous inspections and tests are currently being entered into the *e-PSM* system.

Facility management reported that all preventive maintenance inspections and tests are performed by the third party refrigeration contractor (Innovative Refrigeration Systems). Records of inspections and tests are not maintained on-site, but rather are filed at the office of the third party contractor. As a result, the USEPA inspectors requested copies of pressure relief valve replacement records and ammonia detector calibration and check records. In response to this request, the facility provided quarterly inspection records, and purchase order/invoice records from their third party refrigeration contractor. A review of these records indicated that the quarterly inspection records did not provide equipment-specific results for ammonia sensor testing unless a deficiency was noted, and that quarterly inspections were signed "Innovative Tech" without identifying the name of the actual Innovative Technician who performed the inspection/test. The facility must ensure that inspection/tests documentation includes equipment-specific information, name of person performing the inspection/test, and results of each inspection/test, as required by 40 CFR 68.73(d)(4).

Although the facility relies on a third party refrigeration contractor for implementing its Mechanical Integrity Program, it is important that records of inspections and tests be available to facility personnel and auditors for verification purposes. As a result, it is recommended that completed inspections and tests be archived in the *e-PSM* system or in paper files maintained at the facility.

The facility is also reminded that it's Mechanical Integrity written description and implemented Mechanical Integrity program must be consistent with one another. For example, the facility's third party refrigeration contractor performs inspections/tests on ammonia sensors on a quarterly basis; however, a quarterly inspection/test on ammonia sensors is not indicated on the facility's list of scheduled inspections and tests. Rather, the testing of ammonia sensors is listed on semi-annual and annual checklists. The facility should consult manufacturer recommendations and generally accepted good engineering practices in order to develop and implement a schedule for ammonia sensor testing.

Management of Change (MOC) [*40 CFR 68.75*] & Pre-Startup Review (PSR) [*40 CFR 68.77*]

The *e-PSM* system includes written procedures for MOC and PSR. The written procedures are consistent with Risk Management Program regulatory requirements.

One MOC record was on-file for review. MOC 2010-1, dated 8/7/10 addressed updates to relief line piping and valves to current ASHRAE Standard-15 and IIAR-2 Codes. The MOC/PSR procedure appeared to be properly implemented regarding this change.

Compliance Audits [*40 CFR 68.79*]

The *e-PSM* system includes a written procedure for conducing Risk Management Program compliance audits. The most recent Risk Management Program compliance audit was completed on 3/30/11 and documented in a report dated 4/20/11. The audit was conducted by a third party consultant (Antea Group). The previous audit was conducted in August 2010 by Innovative Refrigeration Systems, Inc. Both audits utilized detailed process safety checklists and resulted in recommendations for follow-up.

Incident Investigation [*40 CFR 68.81*] / Five-Year Accident History [*40 CFR 68.42*]

The facility's e-PSM system includes six incident investigations. The descriptions of these incident investigations ranged from a defective liquid pump shaft seal to paint fumes and exhaust gas triggering the sounding of ammonia sensor alarms. Each incident investigation did not result in a catastrophic release or potential for catastrophic release.

The facility's June 6, 2006 incident investigation regarding a defective liquid pump seal was reviewed. Although this event did not have the potential to result in a catastrophic release, the facility issued an incident investigation report. Several actions items (findings/recommendations), however, served more as general comments rather than items that require action, and the action items did not include a mechanism to ensure that

they are resolved and documented promptly. The facility should review its Incident Investigation procedures in order to ensure that all incident investigation findings and recommendations are promptly addressed and documented.

The facility's Five-Year Accident history procedure is contained in the "Hazard Assessment" section of the facility's *e-PSM* system. This procedure allows facility personnel to complete release-specific information, as identified in 40 CFR 68.42, and have the information automatically submitted into the *e-PSM* system. Although the facility has a Five-Year Accident history procedure, the facility is reminded that all applicable accidents must be posted in the EPA's RMP*eSubmit system within six months of each applicable accident, as required by 40 CFR 68.195(a).

Employee Participation [*40 CFR 68.83*]

A written description of the facility's "Employee Participation" Program is provided in its *e-PSM* system.

However, the following documents in the *e-PSM* system's "Employee Participation" section were not completed:

- "PSM/RMP Committee Members"
- "PSM/RMP Committee Review/Meeting Minutes Form"

It is recommended that the facility complete and load these documents in the *e-PSM* system.

The facility performs a quarterly Ammonia Safety Committee Meeting. During these meetings, facility personnel cover several PSM-related topics, such as potential for releases, any changes to the anhydrous ammonia system, and any required training. The Ammonia Safety Committee, during the time of the inspection, consisted of the Facility Manager, Facilities Supervisor, Director of Safety, and a forklift operator. The results of these meetings are posted in the facility's break room.

A copy of the EPA's Pre-Inspection Letter was mailed to the facility's Local 294 Union Representative on May 2, 2011. As stated previously in this report, the facility's warehouse workers and drivers are union-represented, while those involved in the anhydrous ammonia process (Facilities Supervisor, Facility Manager, and Director of Safety) are not. A facility Vice President, Michael Della Rocca, indicated that the Local 294 Union Representative, David Farone, had declined participation in the May 13, 2011 Risk Management Program inspection.

Hot Work Permit [*40 CFR 68.85*]

The facility has a template Hot Work Permit in its *e-PSM* system, and a general description of the facility's Hot Work Permit program. The template Hot Work Permit addresses Hot Work Permit requirements located in 29 CFR 1910.252(a), including date, expiration of the permit, item to be worked on, whether facility personnel or a contractor will perform the hot work, and type of hot work (i.e. cutting, welding, etc.).

A Hot Work Permit, dated November 7, 2010, was reviewed during the inspection. This Hot Work Permit was issued in regards to re-piping smaller relief valve piping to larger diameter piping, and was performed by the third party refrigeration contractor. This Hot Work Permit included an expiration date, a checklist of safety items, and date of final approval of the hot work that was performed. This Hot Work Permit demonstrated a sufficient understanding of Hot Work Permit requirements.

Contractor Safety [*40 CFR 68.87*]

The facility uses "Right-to-Know" forms that notify contractors of hazards of the facility, including hazards associated with the anhydrous ammonia process. These "Right-to-Know" documents are sent to the contractor, and the contractor must then sign these forms in order to certify that facility hazard information has been received and understood. Contractors are also required to mail their certificate of insurance to Sysco prior to beginning contract work.

As previously stated, the facility's anhydrous ammonia contractor is Innovative Refrigeration System Inc. On an annual basis, Innovative Refrigeration System Inc. is required to send the training certification status of its operators to Sysco Albany management. The certification status of Innovative Refrigeration System Inc.'s operators was reviewed for year 2010. Sysco Albany personnel have also retained Innovative Refrigeration System Inc.'s OSHA 300 log for the past five years.

Although the facility implements contractor safety provisions of 40 CFR 68.87, the facility has not implemented all procedures outlined in the *e-PSM* Contractor Safety Program, nor completed contractor evaluation forms in the facility's *e-PSM* system. Specifically, there are forms for "Annual Contractor Evaluation", "Contractor Employee Injury/Illness Log", Contractor Training/Safety Documents", and "Contractor Training Certification"; completed versions of these forms were not maintained in the *e-PSM* system.

Emergency Response [*40 CFR 68.90 – 68.95*]

Sysco Albany personnel are not first-responders. As a result, the facility has coordinated emergency response efforts with the Clifton Park Fire Department and Saratoga County Hazmat team. As of the date of the inspection, the most recent visit by the Saratoga County Hazmat team took place on September 20, 2010. The Clifton Park Fire Department visits the facility on an annual basis.

Sysco Albany has an Emergency Action Plan that discusses topics including, but not limited to, Emergency Escape Procedures and Routes, Rescue and Medical Duties, evacuation and assembly area maps, and procedures for reporting emergencies. The facility's procedure for reporting an emergency, which includes chemical release, fire, or medical, requires that the appropriate response entity is notified by dialing 9-1-1, or by calling the response agency directly. Facility personnel explained that dialing 9-1-1 will put the facility in contact with the Clifton Park Fire Department, who then determines whether response by the Saratoga County Hazmat team is necessary.

Additional information in a separate document titled "Emergency Responsibilities". This document provides contact information for the National Response Center (NRC). The facility should, however, consolidate emergency response notification procedures in order to 1) ensure that they are complete, concise, and readily available, and 2) ensure that appropriate governmental authorities are notified of releases in accordance with Emergency Planning and Community Right to Know Act (EPCRA) Section 304 and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 103 requirements. The facility is reminded that it must notify the State Emergency Response Commission (SERC), Local Emergency Planning Committee (LEPC), and NRC for releases equal to or greater than 100-lbs.

A discrepancy in the "Flow Chart for Suspected Ammonia Leak" document was found pertaining to the mitigation of leaks. For example, the "Flow Chart for Suspected Ammonia Leak" document indicates that "Maintenance Department or outside Refrigeration Contractor mitigates leak". This conflict with information obtained during the inspection, where facility personnel indicated that they are not trained to troubleshoot equipment and mitigate releases, and that the third-party refrigeration contractor, who could troubleshoot leaks, may not necessarily be located nearby. Additionally, the "Flow Chart for Suspected Ammonia Leak" does not identify at what point local response authorities would be notified of the release.

Tier II

The facility's Tier II submission for reporting year 2010 was reviewed. The submission was performed through e-Plan. Facility personnel reported that a copy of the Tier II form was hand-delivered to the local fire department.

FACILITY TOUR

Several items noted during the facility tour include:

- As previously stated, on-site personnel had a limited understanding of the design and operation of the actual refrigeration equipment. For example, facility personnel could not properly identify the King Valve during the facility tour, nor was the King Valve labeled. **The facility must label the King Valve as per industry standard (*Guidelines for IIAR Minimum Safety Criteria for a Safe Ammonia Refrigeration System*, Bulletin No. 9) and improve training of key on-site personnel regarding equipment design and operation, particularly as it relates to key shutoff valves and emergency systems.**

- There was indication of paint peel on one of the high side discharge (HSD) lines from a compressor to the condenser. **The facility should remove the paint peel and re-surface the line to protect it from external corrosion.**

- Insulation on tanks and ammonia lines was generally observed to be in good condition.

- Facility housekeeping was good.

- Ammonia equipment (vessels and lines) was well-labeled, showing contents and direction of flow.

- Field verification of the P&ID for high pressure receiver indicated that the actual equipment was consistent with the P&ID.

FINDINGS

Registration

- The facility's Five-Year Risk Management Plan (RMP) re-submission was due by June 20, 2010. The required RMP re-submission, however, was not posted in the EPA's RMP*eSubmit website until December 6, 2010 (approximately six months late). **The facility must ensure that its RMP is updated at least every five years, as required by 40 CFR 68.190(b)(1).**

Management System [*40 CFR 68.15*]

- The facility's "Distribution of Responsibilities" document, Risk Management Plan, and actual responsibilities of personnel and contractors are not consistent with one another. **The facility must develop a sufficient Management System that is consistent with actual positions, job responsibilities, and organizations responsible for developing and implementing the facility's Risk Management Program, as required by 40 CFR 68.15(a).**

Process Safety Information (PSI) [*40 CFR 68.65*]

- PSI documentation did not include an evaluation of the consequences of deviation. **The facility must prepare an evaluation of the consequences of deviation, as required by 40 CFR 68.65(c)(1)(iv).**

- PSI information did not include documentation that existing equipment complied with Recognized and Generally Accepted Good Engineering Practices (RAGAGEP). **The facility must document that equipment complies with RAGAGEP, as required by 40 CFR 68.65(d)(2).**

Training [*40 CFR 68.71*]

- Although the facility operators are trained through off-site Innovative Refrigeration System Inc. courses and on-site visual demonstration by Innovative Refrigeration System Inc. contractors, there was no documentation certifying that the Sysco Albany operators are sufficiently trained for their roles in operating the facility's specific anhydrous ammonia system configuration and emergency operations. **The facility must ensure that initial and refresher training is documented for carrying out process-specific operating procedures, as required by 40 CFR 68.71(c).**

Mechanical Integrity [*40 CFR 68.73*]

- Quarterly inspection records did not provide equipment-specific results for ammonia sensor testing unless a deficiency was noted, and that each quarterly inspection was signed "Innovative Tech" without identifying the name of the actual Innovative Technician who performed the test. **The facility must ensure that inspection/tests documentation includes equipment-specific information, name of person performing the inspection/test, and results of each inspection/test, as required by 40 CFR 68.73(d)(4).**

ITEMS OF CONCERN

- During the inspection, on-site personnel had a limited understanding of the design and operation of the actual refrigeration equipment. **Facility personnel should be able to demonstrate sufficient knowledge in facility-specific anhydrous ammonia operations, especially as it pertains to emergency operations, safety inter-locks, shut-off valves, and location of the King Valve.**

- Written program element descriptions in *e-PSM* and actual implementation of 40 CFR Part 68 (Risk Management Program Rule) are not consistent with one another. **The facility must ensure that all aspects of the facility's *e-PSM* system (including written descriptions and template forms), and actual implementation of the Risk Management Program Rule by facility personnel are consistent with one another.**

Hazard Assessment [*40 CFR 68.20-68.39*]

- Inconsistencies regarding Worst Case (WC) and Alternative Case (AC) release parameters were noted between the facility's *e-PSM* system and 12/6/10 RMP. The facility should evaluate its Hazard Assessment information and ensure that the *e-PSM* system and the facility's Risk Management Plan (RMP) submission are consistent with one another. Hazard Assessment corrections to the facility's 12/6/10 RMP must be performed through the EPA's RMP*eSubmit system. The facility's WC and AC release scenario calculations can be performed in RMP*Comp, which contains a scientifically-based adjustment for passive mitigation, and 2010 Census data population information can be obtained through MARPLOT version 4.2.1.

Process Safety Information (PSI) [*40 CFR 68.65*]

- During a review of PSI documentation regarding safety systems, a discrepancy was identified regarding the setpoint for the automatic shutdown of ammonia supply valves to air handling units (AHUs) (500 ppm vs. 50 ppm). The facility should resolve this discrepancy, make appropriate changes to safety system documentation if necessary and train and/or inform operators regarding the correct setpoint for AHU supply valve shutdown.

Process Hazard Analysis (PHA) [*40 CFR 68.67*]

- It appears that the 8/16/10 PHA revalidation did not include a team review despite team involvement. **The facility must ensure that each 5-Year PHA revalidation includes a team review, as required by 40 CFR 68.67(f).**

Standard Operating Procedures (SOPs) [*40 CFR 68.69*]

- Because there is no Sysco Albany facility employee with the title "Refrigeration Operator", the facility should delineate which SOPs are executed by the "Facilities Supervisor", and which SOPs are carried out by Innovative Refrigeration System's qualified refrigeration operators.

Training [*40 CFR 68.71*]

- In order to define its initial and refresher training requirements and ensure that process-specific training is sufficiently documented, it is recommended that the facility formalize a training policy that outlines specific initial and refresher training requirements.

Mechanical Integrity [*40 CFR 68.73*]

- Facility management reported that all preventive maintenance inspections and tests are performed by the third party refrigeration contractor (Innovative Refrigeration Systems). Records of inspections and tests are not maintained on-site, but rather are filed at the office of the third party contractor. Therefore, such inspection and test records were not available for review at the facility. **Facility management should verify that tests and inspections are performed, and that the appropriate records are maintained by the third party refrigeration contractor. It is recommended that these records be also maintained in the *e-PSM* system so that they can be readily reviewed by facility personnel and auditors.**

Emergency Response [*40 CFR 68.90 – 68.95*]

- The facility should consolidate emergency response notification procedures in order to 1) ensure that they are complete, concise, and readily available, and 2) ensure that appropriate governmental authorities are notified of releases in accordance with Emergency Planning and Community Right to Know Act (EPCRA) Section 304 and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 103 requirements.

- Discrepancies were noted in the facility's "Flow Chart for Suspected Ammonia Leak" document. Specifically, the document should accurately identify which entity can mitigate a leak, and at what point local response authorities are called.

RECOMMENDATIONS

Process Hazard Analysis (PHA) [*40 CFR 68.67*]

- The 8/16/10 PHA did not result in any findings or recommendations. The facility is encouraged to explore other PHA methods, thoroughly review previous PHAs, and use equipment-specific checklists during PHA revalidations in order elicit findings and recommendations that could improve operations and safety of the anhydrous ammonia system.

Incident Investigation [*40 CFR 68.81*] / Five-Year Accident History [*40 CFR 68.42*]

- Several actions items (findings/recommendations) from a June 6, 2006 Incident Investigation served more as general comments rather than items that require action, and the action items did not include a mechanism to ensure that they are resolved and documented promptly. The facility should review its Incident Investigation procedures in order to ensure that all incident investigation findings and recommendations are promptly addressed and documented.

Employee Participation [*40 CFR 68.83*]

- The facility has not completed the following Employee Participation documents referenced in the "Employee Participation" section of the *e-PSM* system:
  - "PSM/RMP Committee Members"
  - "PSM/RMP Committee Review/Meeting Minutes Form"

It is recommended that the facility complete and load these documents in the *e-PSM* system.

Contractor Safety [*40 CFR 68.87*]

- The facility has not implemented all aspects of its *e-PSM* Contractor Safety Program, nor completed contractor evaluation forms in the facility's *e-PSM* system. Although the facility implements Contractor Safety requirements in 40 CFR 68.87, the facility should implement a written Contractor Safety Program/Policy (i.e. *e-PSM*), and document completed contractor evaluation forms in *e-PSM*.